

## REMARKS

In accordance with the foregoing, claims 1-10 have been amended, with support for the amendments found throughout the specification. Claims 11-18 have been added. Claims 1-18 are currently pending, with claims 1, 14 and 17 being independent.

Applicant appreciated the opportunity to meet with the patent examiner on July 13, 2006. During that interview, the Applicant demonstrated the operation of the invention and Applicant's attorney discussed the distinguishing features of the invention over the prior art, which is explained in more detail below.

### 1. Objections to Claims 1, 6 and 9

Claims 1, 6 and 9 have been objected to on account of certain informalities. Applicant believes that the informalities have been corrected and requests withdrawal of the objections.

### 2. Rejections under 35 USC § 103

#### Claims 1-3

Claims 1-3 have been rejected under 35 USC § 103 as being unpatentable over Dunning (U.S. Patent No. 3,430,728) in view of Croft (U.S. Patent No. 6,169,811). Claim 1 as amended recites an apparatus for improving the acoustic impedance for a loudspeaker that includes an enclosure with six outer walls and six inner walls connected to form a box structure three of said inner walls being one of three wave-guides forming a closed loop embedded acoustic transmission line, a second enclosure disposed within said

first enclosure using one of the walls of said first enclosure to complete its structure while the other three walls also form the second of the required wave-guides constructing an embedded acoustic transmission line, a termination member affixed at the end of said transmission line to seal and form the third of the required wave-guides constructing an embedded acoustic transmission line, at least one aperture located in at least one interior wall preferably the back of said second enclosure of a proportional diameter or area creating a throat/mouth opening to said embedded acoustic transmission line, an alternative density transmission medium affixed to at least one of said wave guides covering a majority of its surface, at least one opening in the wall common to both structures hereinafter called a baffle board to mount a bi-directional loudspeaker and a bi-directional loudspeaker mounted on the baffle board, wherein a sound wave reflected through the aperture improves the acoustic impedance of the apparatus.

In contrast, Dunning teaches a five-walled inner cabinet nested in a five-walled outer cabinet. The cabinets are lined with absorbent pads and a dead-air space between the cabinets suppresses any sound wave not absorbed by the pads. As taught by Dunning, "[a]ny waves which pass through the pads 31-35 will be absorbed in the dead air space 37 or will be finally suppressed by pads 21-25 of the enclosure. The system thus constitutes an infinite baffle at the rear of the loudspeaker cone, since no waves emitted at the rear of the cone can come around to the front of the cabinet to interfere with or cancel waves emitted at the front of the cabinet." Dunning at col. 2, lines 64-72.

As such, Dunning does not describe or suggest at least one aperture located in at least one interior wall creating a throat/mouth opening to said embedded acoustic

transmission line such that a sound wave reflected through the aperture improves the acoustic impedance of the apparatus.

Croft describes a bandpass loudspeaker system that includes an aperture between first and second enclosures that offers certain bandpass characteristics. However, as Dunning is designed as an infinite baffle that deadens or absorbs all sound waves in the enclosure, there is no motivation or suggestion to include an aperture between the inner and outer cabinets. Instead, the addition of an aperture to Dunning would be destructive to its purpose and would reduce the effectiveness of the invention.

Moreover, the combination of Dunning and Croft does not describe or suggest an aperture located in at least one interior wall which reflects a sound wave in order to improve the acoustic impedance of the apparatus. Thus, even a hypothetical combination of the references does not describe or suggest the invention recited in claim 1.

Accordingly, Applicant respectfully requests withdrawal of the rejection to claim 1 and the claims depending therefrom.

#### Claims 6-8

Claims 6 and 8 have been rejected under 35 USC § 103 over Dunning in view of Croft. As amended, claims 6 and 8 depend from claim 1. Thus, the Applicant request withdrawal of the rejection for the same reasons described above with respect to claim 1.

#### Claim 4

Claim 4 has been rejected under 35 USC § 103 over Dunning in view of Croft and further in view of Rocha (U.S. Patent No. 6,169,811). Since claim 4 depends from claim 1, Applicant request withdrawal of the rejection for the same reasons described above with respect to claim 1.

#### Claim 5

Claim 5 has been rejected under 35 USC § 103 over Dunning in view of Croft and further in view of Norris (U.S. Patent Appl Pub. 2002/0076069). Since claim 5 depends from claim 1, Applicant respectfully requests withdrawal of the rejection for the same reasons described above.

#### Claim 7

Claim 7 has been rejected under 35 USC § 103 over Dunning in view of Croft and further in view of Rocha. Since claim 7 depends from claim 1, Applicant respectfully requests withdrawal of the rejection for the same reasons described above.

#### Claim 9

Claim 9 has been rejected under 35 USC § 103 over Dunning in view of Croft and further in view of Pritchard (U.S. Patent No. 6,411,720). Since claim 9 depends from claim 1, Applicant respectfully requests withdrawal of the rejection for the same reasons described above with respect to claim 1.

#### Claim 10

Claim 10 has been rejected under 35 USC § 103 over Dunning in view of Croft and further in view of Takahashi (U.S. Patent No. 6,013,362). Since claim 10 depends from claim 1, Applicant respectfully requests withdrawal of the rejection for the same reasons described above with respect to claim 1.

In addition, Applicant asserts that the dependent claims have features that include independently patentable subject matter. For example, claim 10 recites an "open cell foam", the purpose of which is to reflect a sound wave to improve an acoustic impedance. In contrast, Takahashi describes a sound proof material used to isolate motor noise.

There is no suggestion or motivation to combine the sound proof material described in Takahashi with Dunning and Croft so as to produce the invention described in claim 10.


#### CONCLUSION

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Kevin McNeely, Applicant's Attorney at 202 274-0214 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is respectfully requested.

Respectfully Submitted,

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Date

  
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